

# SLX-10MG-1 Managed Industrial Ethernet Switch

Sixnet Networking Series



## Managed 10 Port Industrial Ethernet Switch

The SLX-10MG is a 10 port industrial Ethernet managed switch with 7 fast and 3 Gigabit ports of which two are combination ports that support both copper and fiber optic connections. This switch is designed to be rugged, reliable, real-time and secure. It combines compact DIN rail packaging, protected circuitry and powerful software to keep your system going even under the toughest conditions.

### PRODUCT HIGHLIGHTS

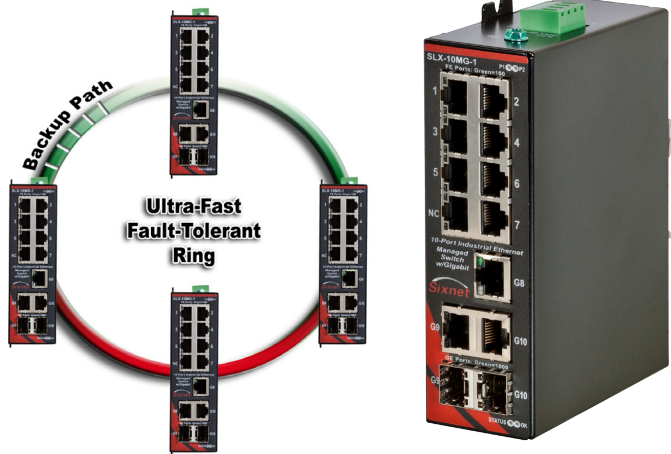
- 10 ports including
  - 7 fast Ethernet 10/100 RJ45 ports
  - 1 Gigabit Ethernet 10/100/1000 RJ45 port
  - 2 Gigabit combo ports for copper or fiber
- High port count in a small footprint
- Truly rugged design with -40 to 75°C operation
- Easy to configure management functions

### REAL-TIME SECURE PERFORMANCE

- Real-Time-Ring™ or Rapid Spanning Tree (RSTP) for fast redundant ring or mesh networks
- SNMPv1 and v2 network management
- SNMPv3 authentication & encryption for security
- SNMP notifications (traps) for report on event
- Priority Queuing (QoS/CoS) for real-time operation
- IGMP for Multicast filtering (snooping & querying)
- VLAN for convenient traffic segregation
- Broadcast & multicast storm protection
- RMON & port mirroring for advanced diagnostics
- Security with HTTPS, SSL, SSH, SNMPv3 & more
- Easy configuration via Web, Telnet or CLI
- Free field-installable firmware upgrades forever

### TROUBLE FREE OPERATION

- 40 to +75 °C operating range
- UL/CSA (CUL), CE and Hazloc (Zone 2) rated (PENDING)
- Dual (redundant) power inputs
- Industrial surge and spike protection
- Self-test/alarm output contact
- DIN rail or direct panel mounting

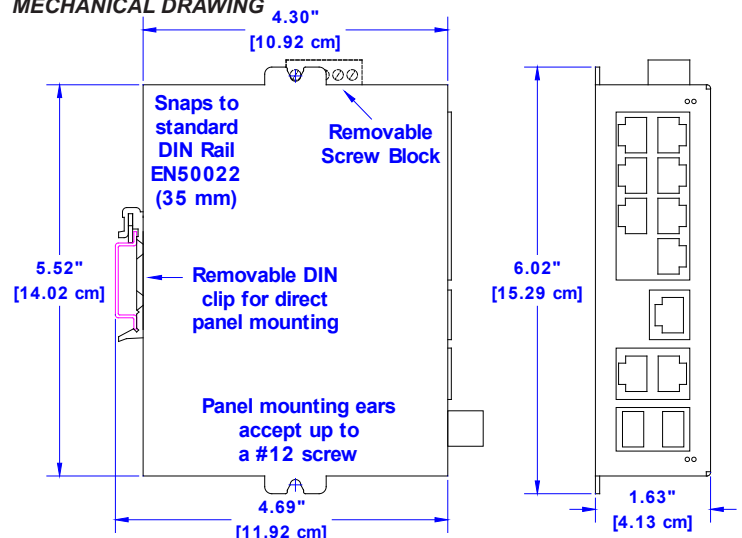


Fast Redundancy with Rapid Spanning Tree or Real-Time-Ring™

### Two Flexible Combination Gigabit Ports

Your choice – Just connect to the RJ45 for a 10/100/1000Mbps auto-detecting copper link or plug in a fiber transceiver for a 100 or 1000Mbps noise-immune fiber link. These advanced ports give you the flexibility you need and make your job easier!

### MECHANICAL DRAWING



See the User Manual for a More Detailed Diagram

# ▶▶▶ SLX-10MG-1 Managed Industrial Ethernet Switch Specifications

## ETHERNET PERFORMANCE

- 10 Ethernet ports including 3 Gigabit
- Managed, store & forward, wire-speed
- All IEEE 802.3 Ethernet protocols supported
- RJ45 ports 1 - 7 (shielded) 10/100BaseTX
- RJ45 ports 8 - 10 (shielded) 10/100/1000BaseTX
- RJ45 port speed auto-negotiation
- RJ45 MDI/MDIX auto-crossover
- RJ45 TD and RD auto-polarity
- Ports 9 and 10 are combination gigabit ports that have both a RJ45 connector and SFP fiber connector. For each of these ports, only one of the connectors can be used at a time.
- SFP (pluggable) ports 9 - 10 accept mini-GBIC transceivers
- Fiber optic port speed: 100 Mbps or 1000 Mbps
- Fiber typical specs (see separate datasheet for details)
  - Multimode, 0.55 km, 850 nm, 50-62.5/125 μm
  - Singlemode, 10 km, 1310 nm, 9-10/125 μm
  - Long haul, up to 120+ km, 1550 nm, 9-10/125 μm
- Typical latency (varies on load & settings)
  - @ 10 Mbps: 16 us + frame time
  - @ 100 Mbps: 5 us + frame time
- Full or half duplex operation configurable per port
- MAC addresses supported 8192
- Memory bandwidth 32 Gbps
- Ethernet isolation 1500 VRMS 1 minute
- Console ports – USB and RS232 (RJ45)

## ETHERNET COMPLIANCE

- IEEE 802.3z (Gigabit 1000 Mbps Ethernet connections)
- IEEE 802.3u (Fast Ethernet 100Mbps for newer devices)
- IEEE 802.3 (10Mbps Ethernet supports legacy devices)
- IEEE 802.3x (Full-Duplex with Flow Control)
- IEEE 802.1D/w (Rapid Spanning Tree for redundant rings and Spanning Tree for interoperability)
- IEEE 802.1p (Priority Queuing – QoS, CoS, ToS/DS)
- IEEE 802.1Q (VLAN for traffic segregation)

## REAL-TIME-RING™

- Link loss recovery: 30 mS plus 5 mS per hop
- Switches in a ring: <50 for best performance
- Multiple rings supported (configurable)

## “OK” ALARM OUTPUT

- Indicates power & operational status
- Voltage same as switch input voltage
- Maximum current output 0.5 Amp

## POWER INPUT

- Redundant input terminals
- Reverse polarity protection
- Input power (typical with all ports active)
  - 5 W (w/ no fiber plugged in)
  - 7 W (w/ 2 fiber plugged in)
- Power input voltage 10-30 VDC
- Transient protection 15,000 watts peak
- Spike protection 5,000 watts (10x for 10 uS)

## ENVIRONMENTAL

- Operating temperature:
  - -40 to 75 °C (cold startup at -40 °C)
- Storage temperature -40 to +85 °C
- Humidity (non-condensing) 5 to 95% RH (optional conformal coating is available)
- Vibration and shock – IEC60068-2-6, -27
- Maximum Operating Altitude: 30,000 ft.

## STANDARDS COMPLIANCE

- Electrical safety – UL508 / CSA C22.2/14; EN61010-1, CE
- EMC – FCC part 15, ICES-003; EN61000-6-4, EN61000-6-2, CE
- Hazardous locations – UL1604 / CSA C22.2/213 (Class I, Div. 2); EN60079-15 (Zone 2, Category 3), CE (ATEX)
- Maritime – designed for marine and offshore per ABS
- RoHS and WEEE compliant
- ISO9001:2000 certified company

## PHYSICAL

- DIN rail or direct panel mounting
- Case – Corrosion-resistant aluminum
- Ingress protection – IP40
- Weight – 0.34 kg (12 oz.)
- Dimensions – see mechanical diagram

All specifications are subject to change. Consult factory for latest info.

## ORDERING GUIDE

<b>SLX-10MG-1</b>	10 port industrial Ethernet switch
<b>GMFIBER-SFP-500</b>	Gigabit SFP fiber transceiver, mm, 550 m
<b>GMFIBER-SFP-2K</b>	Gigabit SFP fiber transceiver, mm, 2 km
<b>GSFIBER-SFP-10K</b>	Gigabit SFP fiber transceiver, sm, 10 km
<b>GSFIBER-SFP-30K</b>	Gigabit SFP fiber transceiver, sm, 30 km
<b>GSFIBER-SFP-50K</b>	Gigabit SFP fiber transceiver, sm, 50 km
<b>GSFIBER-SFP-80K</b>	Gigabit SFP fiber transceiver, sm, 80 km
<b>FMFIBER-SFP-4K</b>	100Mb SFP fiber transceiver, mm, 4 km
<b>FSFIBER-SFP-30K</b>	100Mb SFP fiber transceiver, sm, 30 km
<b>FSFIBER-SFP-60K</b>	100Mb SFP fiber transceiver, sm, 60 km
<b>FSFIBER-SFP-100</b>	100Mb SFP fiber transceiver, sm, 100 km
<b>ET-PS-024-02</b>	Power supply – AC to 24VDC, 2A
<b>SP-ETH-2</b>	Dual port Ethernet surge & lightning protector for the 10/100 ports only
<b>RJ45-DB9F-CBL</b>	Console port cable, DB9 to RJ45

**NOTE:** Contact SIXNET for special or long haul transceivers up to 120 Km.



[www.redlion.net](http://www.redlion.net)

**Connect. Monitor. Control.**

**Americas**  
sales@redlion.net

**Asia-Pacific**  
asia@redlion.net

**Europe  
Middle East  
Africa**  
europe@redlion.net

**+1 (717) 767-6511**

As the global experts in communication, monitoring and control for industrial automation and networking, Red Lion has been delivering innovative solutions for over forty years. Our automation, Ethernet and cellular M2M technology enables companies worldwide to gain real-time data visibility that drives productivity. Product brands include Red Lion, N-Tron and Sixnet. With headquarters in York, Pennsylvania, the company has offices across the Americas, Asia-Pacific and Europe. Red Lion is part of Spectris plc, the productivity-enhancing instrumentation and controls company. For more information, please visit [www.redlion.net](http://www.redlion.net).

ADLD0205 041615 ©2015 Red Lion Controls, Inc. All rights reserved. Red Lion, the Red Lion logo, N-Tron and Sixnet are registered trademarks of Red Lion Controls, Inc. All other company and product names are trademarks of their respective owners.